FACT SHEET
Vacuum Assisted Porewater Sampler

Department of the Navy RAB/TRC Training Workshop

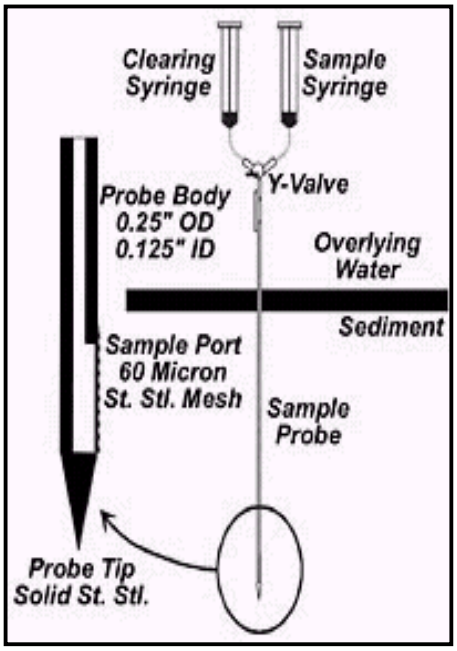
What is a Vacuum Assisted Porewater Sampler?

A vacuum assisted porewater sampler (VAPS) is a small diameter tube that is screened over a short length at one end, and is attached to a vacuum system at the other end. The vacuum system may either be a syringe operated by a diver, or a surface vacuum pump with a subsurface collection container. A diver inserts the VAPS into the sediment to the required depth. The sample is then purged and drawn into a syringe or in-line sampling vessel. Once the sample is collected, it is returned to the surface for processing and analysis.

What does the VAPS do?

The VAPS rapidly maps out the distribution of water contaminants flowing from coastal sediments that are adjacent to hazardous waste sites. By sampling at different depths and different horizontal locations, researchers can use the VAPS to develop a detailed "snapshot" of the contaminant distribution and the migration pathways.

The VAPS system has the potential to streamline the remedial investigation/feasibility study phase by gathering accurate data about contamination levels at various depths. It also provides cost-savings opportunities through precise characterization of contaminant pathways, and potential exposure and risk.



Glossary:

Porewater – water extracted from the spaces between sediment particles

Sediment - Material that settles to the bottom of a liquid.

References:
– Navy, 2000.*DON Environmental Restoration SMART Cleanup for Future Generations.*

For further information please visit:
http://clu-in.org/techfocus/